

ARNOLD ARBORETUM *FLORICULTURE*
HARVARD UNIVERSITY



BULLETIN
OF POPULAR INFORMATION

SERIES 4. VOL. VII

AUGUST 11, 1939

NUMBER 9

DROUGHT AT THE ARBORETUM

THE extended drought of the past six weeks has been broken—we hope! Never before in the history of the Boston Weather Bureau was there so little rain in July, and accurate records have been kept in this area 121 years. Friends of the Arboretum will be glad to know that the heavy thunderstorm of August fourth, brought considerable relief to the many plants at the Arnold Arboretum, and alleviated the acute condition for the time being, at least.

In any large area the size of the Arboretum, there are always places which can normally be expected to become considerably dry when rainfall is low—particularly in the summer time. In the Arboretum, for instance, one of the azalea beds along the Meadow Road is always among the first to suffer from lack of water. Some of the plants in the Chinese collection on Bussey Hill can be expected to show lack of water readily, and it is usually necessary to water the rhododendron collection at least once during the summer, although efforts are made annually to incorporate more humus into the soil about the plants.

There is a rain gauge in the small nursery adjacent to the greenhouse and readings are taken there daily for the Boston Weather Bureau. Though the official rainfall for the month of July for the Boston area was given as .75 of an inch (nearly 3 inches below normal) only .34 of an inch was recorded at the Arboretum during the same period, about the lowest of any area in the vicinity of Boston. The previous July record low for rainfall in the Boston area was in 1849 when only .85 of an inch was recorded.

With an excess of rain (11.10 inches total rainfall in July) and flooded conditions throughout Massachusetts for the same period last year (later followed by a hurricane), it would seem that the plants in eastern Massachusetts are being subjected to all the vagaries which an unpredictable Nature can provide in the short period of one year! It is fortunate, indeed, that the heavy rainfall of August fourth came

when it did. The rain gauge recorded a fall at the Arboretum of .99 of an inch, practically three times as much rain as had fallen during the entire month of July!

Plants Affected

Foremost among the plants which showed noticeable wilting were the large lilacs in the lilac collection growing between the walk and the road, and the *Philadelphus* on the opposite side. These were wilting consistently and it became necessary to water them every few days in order to keep them from losing their leaves. The rhododendrons were beginning to show wilting about the middle of July. Because of the great value of these plants it was necessary to water them continuously for a full week.

Many of the younger trees and shrubs planted in the collections during the past two and three years suffered considerably. Attempts were made to water them but some were so far from the road that it was impossible and as a consequence some undoubtedly will die.

Near the end of July, particularly during the last few days, trees began to show the effects of drought at an alarming rate. Some of the small Japanese cherries near the Administration Building dropped some of their leaves. Several of the viburnums in the collection were in very poor condition, and such rugged plants as *Viburnum dentatum* and *V. lentago*, growing at various places in the Arboretum showed an increasing number of wilted and fallen leaves. The bank of Forsythias below the lilac collection started to wilt about July thirty-first. It was nothing serious, for the leaves did not dry up entirely as did those of many other plants, but they did show pronounced wilting and the rain came in the nick of time to save them from more serious injury.

Fires

During the latter part of July the danger to the plants from fire was as great as the danger from lack of water. One day during the last week of July there were three fires within the boundaries of the Arboretum, two of them burning simultaneously. Most of the fires, (they averaged about one a day for over two weeks) were small grass fires, started by dropped matches or cigarettes and were easily controlled by Arboretum workmen, but for some it was necessary to call the fire department in order to obtain quick control. No serious damage was done to any of the valuable trees and shrubs, due to the prompt control methods of the Arboretum force and the firemen.

It is hoped that the heavy rains of August fourth will be followed shortly by others. At the time this is written, plants in the Arboretum can be said to have recuperated fairly well, but with a pronounced deficiency of rainfall to date, considerably more rain is needed before the trees and shrubs can be considered safely out of danger for the rest of the summer.

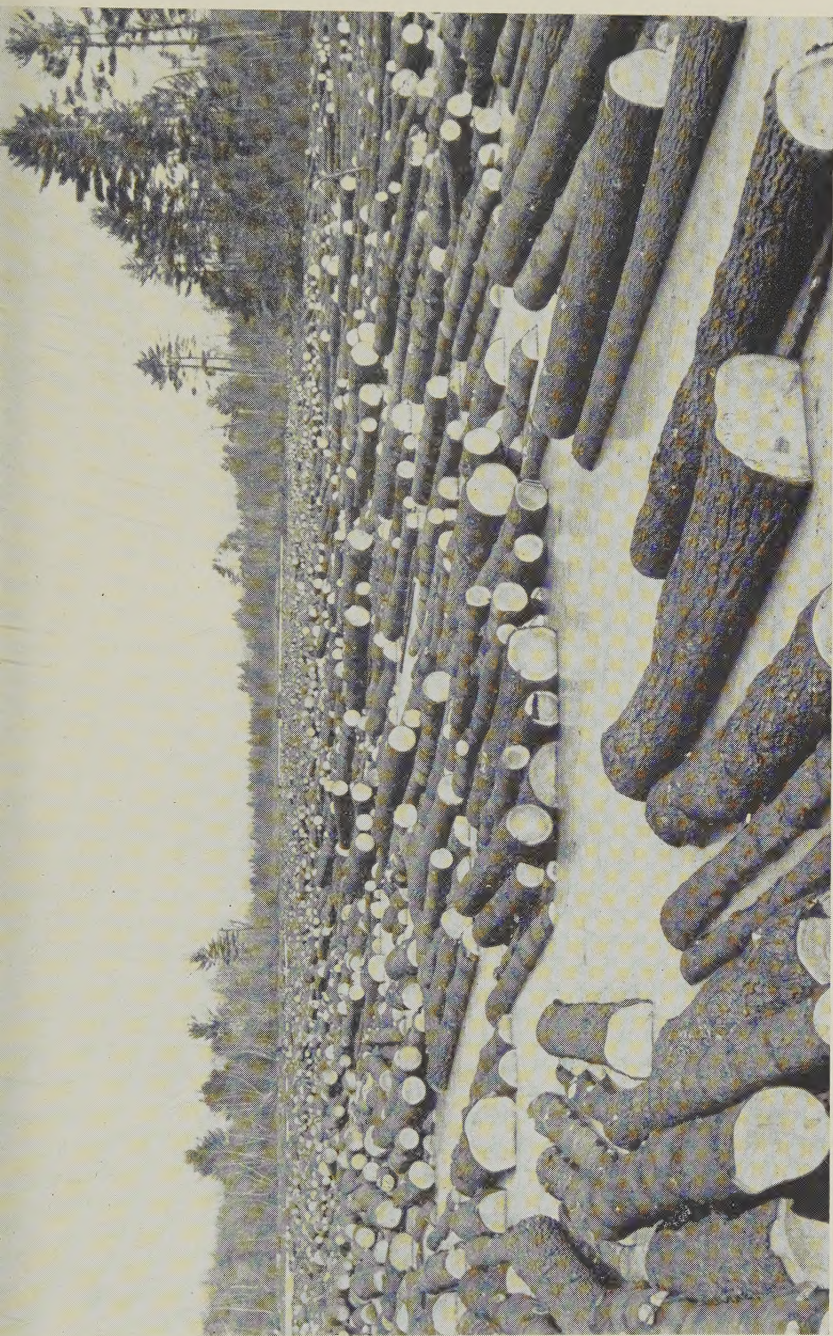


PLATE VII

Logs awaiting the saw mill in Tom Swamp Pond of the Harvard Forest, Petersham, Mass., mute evidence of the terrific destruction caused by the hurricane last fall. One might judge that Nature had run through the entire gamut of weather tricks since July of last year.

An Important Introduction of Seeds from Western China to the Arnold Arboretum

Within the past few years it has been the policy of the Arnold Arboretum to make modest grants to strategically located institutions and individuals in support of cooperative collection of seeds as well as botanical specimens essential to the proper identification of the former. Last year the very large seed collection, comprising about 2300 numbers, made by Mr. Yu in 1937 in western China was distributed through the Arboretum. From a grant made in the early part of 1938 to the Fan Memorial Institute of Biology in Peiping the Arboretum has just received, in one shipment, 585 packages of seeds from Yunnan-Sikang, in southwestern China. Over one-half of the numbers represent woody species, the remainder herbaceous forms. The field work was done by Mr. T. T. Yu during the past collecting season. The seeds were shipped from Yunnan-fu in April and delivered in Boston on July 12, a commentary on the delays in transportation to which such material is subject due to present unsettled conditions in China. The botanical material, shipped at the same time, has not yet been received.

Selections from the woody species will be made for trial at the Arboretum, while excess material will be distributed to the various correspondents of the institution who may be interested in new introductions. With little information as to whether or not the various species may prove to be hardy in New England, it seems to be better policy to give such current introductions rather wide distribution, so that if the species fails to survive with us, it may be found to thrive elsewhere.

The seeds of the herbaceous species, mostly determined to the genus, have been turned over to the Massachusetts Horticultural Society for distribution to its members. This current shipment from war-torn China is potent evidence that plant hunting is still actively going on in these unsettled times.

Note

The Arboretum is always recommending new plants to the horticulturally minded public, though it is not always possible to get such new things in large quantity. Both *Prinsepia sinensis* and *P. uniflora* are two excellent, vigorous-growing, thorny shrubs which are not grown much in this country outside of botanic gardens but they have been described from time to time in this Bulletin and recommended. The trouble has been the inability to get seed. Now it may be obtained for \$0.50 per pound (cleaned, packed, and delivered to the Post Office at Harbin, Manchoukuo) from:

Mr. A. Woeikoff, The Garden of Manchurian Flora, P. O. Box 33, Harbin, Manchoukuo. Those interested should write immediately.

DONALD WYMAN